

Asbestos debris cleanup planned at former Houghton County mining facility

[HYPERLINK "http://www.mlive.com/news/grand-rapids/index.ssf/2016/10/asbestos_debris_cleanup_planne.html"]

By Brandon Champion updated October 20, 2016 at 12:07 PM

LAKE LINDEN, MI – Several agencies will be working to remove asbestos debris at the Houghton County Historical Museum in the coming weeks.

The U.S. Environmental Protection Agency announced an agreement with Honeywell Specialty Materials LLC and the museum on Wednesday, Oct. 19.

The EPA advises the public to avoid the museum, 53102 M-26, in Lake Linden, the train tracks and nearby areas including the stamp mill bases until the cleanup is completed.

Work will begin later this month and is expected to take about five weeks. The agency has directed the Historical Society, which owns the museum, to restrict public access to the site and post warning signs at the perimeter.

The museum site was owned by the Calumet and Hecla Mining Co. which processed copper ore there from the late 1800's until the mid-1900s.

Honeywell later acquired Calumet and Hecla. Many of the original building structures were demolished leaving behind piles of bricks, wood, metal, and other debris that contained asbestos. Portions of the facility are currently maintained for historical purposes.

[HYPERLINK "<http://www.eenews.net/stories/1060044726>"]

EPA to FERC: 'We really need to talk'

[HYPERLINK "http://www.eenews.net/staff/Hannah_Northey"], E&E reporter

Greenwire: Monday, October 24, 2016

U.S. EPA is seeking a headquarters-level discussion with the Federal Energy Regulatory Commission to promote deeper, more comprehensive climate reviews of proposed natural gas pipelines.

"We as an agency think they need to take a more comprehensive approach to analyzing greenhouse gas emissions for natural gas projects," said Ken Westlake, who heads the National Environmental Policy Act section for EPA's Region 5 Office in Chicago.

"There have been a number of new pipelines or extended pipelines proposed to cross the country this year, and this particular letter represents us saying to FERC, 'We really need to talk comprehensively about FERC's approach to greenhouse gas analysis in their NEPA documents.'"

Environmental News Clips – Week ending October 28, 2016

So far, it's radio silence.

"We have not received any reply from FERC," Westlake said in an interview.

Advertisement

The meeting request was spurred by EPA last week [[HYPERLINK "http://www.eenews.net/assets/2016/10/13/document_gw_08.pdf"](http://www.eenews.net/assets/2016/10/13/document_gw_08.pdf)] FERC of ignoring its request for a deeper look at downstream greenhouse gas emissions from the \$1.4 billion Leach Xpress natural gas pipeline, which TransCanada hopes to build in the heart of the Marcellus and Utica shale plays ([[HYPERLINK "http://www.eenews.net/greenwire/stories/1060044234"](http://www.eenews.net/greenwire/stories/1060044234)], Oct. 13). Westlake today said EPA's push goes far beyond Leach Xpress.

"It's not just for this project," he said. "It's a policy conversation we need to have with FERC about their approach to greenhouse gas emissions across future" environmental impact statements.

FERC declined to comment.

EPA officials last week said they want a "definitive resolution" through a sit-down meeting and expressed concern about FERC's approach in light of the White House issuing a guidance that advises all agencies to quantify projected emissions for energy projects whenever the necessary tools, methodologies and data inputs were available.

As the lead agency on NEPA reviews for gas pipelines, compressor stations and export terminals, FERC takes comments from advisory agencies like EPA.

Westlake noted that EPA's comments are advisory only and the agency cannot compel FERC to hold a headquarters-level gathering to discuss policy.

"We try to choose our words carefully and promote ongoing relationships," he said. "Ultimately, we cannot compel them to have a meeting. We think we've made it clear such a policy discussion would be beneficial, and we'll continue to make that point until we see progress."

EPA, he added, is looking for more consistency in pipeline reviews and for a life-cycle analysis of emissions to be standard practice for FERC on gas pipelines. He noted the White House Council on Environmental Quality guidance clearly advises agencies across the board on how they ought to approach the issue of climate change and said EPA is encouraging other agencies to take an approach that follows the CEQ guidance.

EPA officials said they want to meet before FERC makes a decision on the Leach Xpress, partly to make sure the agency digs deep into downstream emissions from other projects under NEPA going forward.

Some analysts question whether FERC would grant EPA's wish.

Environmental News Clips – Week ending October 28, 2016

ClearView Energy Partners LLC analyst Christi Tezak told clients in a note last week that EPA's request is "highly unusual" and that it's not clear whether it would affect the proposed Leach Xpress. The project's approval could come late this year.

Although FERC has expanded the scope of its environmental reviews for gas projects under NEPA over the past year, EPA has repeatedly found the reviews wanting, Tezak wrote.

"In some respects, we think the EPA's recommendations appear to reflect a concerted effort to change how the FERC manages the mechanics of the certificate process under the Natural Gas Act (NGA), not just NEPA reviews," she wrote. "At this juncture, we're not sure such efforts will succeed."

Tezak also noted some inconsistencies, pointing to FERC analyzing emissions from gas use for some projects but not others. That, she said, could leave developers open to delays or even legal challenges.

FERC, for example, didn't quantify downstream indirect greenhouse gas emissions from the Leach Xpress pipeline but did analyze those emissions in an environmental impact statement for the Mountain Valley pipeline, which would stretch 300 miles from northwestern West Virginia to southern Virginia.

"The variation between FERC's indirect GHG emissions analyses," Tezak wrote, "could leave some projects more vulnerable to challenge in court than others."

[HYPERLINK "<http://michiganradio.org/post/epa-decides-kalamazoo-s-mount-pcb-get-consolidated-capped>" \l "stream/0"]

EPA decides Kalamazoo's "Mount PCB" to get consolidated, capped

By [HYPERLINK "<http://michiganradio.org/people/lindsey-smith>"] • OCT 21, 2016

Share[HYPERLINK

"<http://twitter.com/intent/tweet?url=http%3A%2F%2Fwww.tinyurl.com%2Fh8kpgar&text=EPA%20decides%20Kalamazoo%E2%80%99s%20%E2%80%9CMount%20PCB%E2%80%9D%20to%20get%20consolidated%2C%20capped>" \t "_blank" \o "Twitter"] [HYPERLINK

"<http://facebook.com/sharer.php?u=http%3A%2F%2Fwww.tinyurl.com%2Fh8kpgar&t=EPA%20decides%20Kalamazoo%E2%80%99s%20%E2%80%9CMount%20PCB%E2%80%9D%20to%20get%20consolidated%2C%20capped>" \t "_blank" \o "Facebook"] [HYPERLINK

"<https://plus.google.com/share?url=http%3A%2F%2Fwww.tinyurl.com%2Fh8kpgar>" \t "_blank" \o "Google+"] [HYPERLINK

"mailto:?subject=EPA%20decides%20Kalamazoo%E2%80%99s%20%E2%80%9CMount%20PCB%E2%80%9D%20to%20get%20consolidated%2C%20capped&body=http%3A%2F%2Fwww.tinyurl.com%2Fh8kpgar" \t "_blank" \o "Email"]



The Allied landfill site sits directly behind dozens of neighbors' backyards. A fence separates the yards from Portage Creek, which runs around the Allied site.

Lindsey Smith / Michigan Radio

[[HYPERLINK "https://www.epa.gov/newsreleases/epa-finalizes-cleanup-plan-allied-paper-landfill-kalamazoo"](https://www.epa.gov/newsreleases/epa-finalizes-cleanup-plan-allied-paper-landfill-kalamazoo)] it will consolidate and cap one-and-a-half-million cubic yards of old industrial waste in Kalamazoo. It's been dubbed a compromise plan after residents and city leaders urged the EPA to choose a plan that would remove the waste entirely from the Allied Site.

"I'm reluctant to use terms like compromise because protectiveness is something the EPA can't compromise on," EPA Remedial Project Manager Michael Berkoff said.

Environmental News Clips – Week ending October 28, 2016

"We have selected the best remedy for the site ... because of its protectiveness both in the short-term and the long-term due to the stewardship that we anticipate the city providing," he said.

Berkoff says a heavy-duty cap will keep water from getting into the site neighbors have called "Mount PCB." The remedy also includes long-term monitoring to ensure the PCBs stay in place. The remedial option is expected to cost \$63 million.

Berkoff says the next step is the design phase, which will last up to two years. Implementing the cleanup itself will take another two years.

This option includes potential redevelopment of some of the site.

The Allied Site is one section of an [[HYPERLINK "https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0502325"](https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0502325)]

WMUK - Allied Paper Landfill To Be Capped, Consolidated

WWMT - EPA gives green light to final cleanup plan for Allied Paper landfill

WHTC - EPA picks plan to clean Allied Paper dumpsite

[[HYPERLINK "http://wmuk.org/post/allied-paper-landfill-be-capped-consolidated"](http://wmuk.org/post/allied-paper-landfill-be-capped-consolidated)]

Allied Paper Landfill To Be Capped, Consolidated

[[HYPERLINK "http://wmuk.org/people/rebecca-thiele"](http://wmuk.org/people/rebecca-thiele)] • Oct 21, 2016

It looks like the hazardous waste at Kalamazoo's Allied Paper Landfill is here to stay. On Friday, the EPA released their [[HYPERLINK "https://semspub.epa.gov/work/05/508880.pdf"](https://semspub.epa.gov/work/05/508880.pdf)] for the Superfund site. The mound of PCB contaminated soil will be consolidated to about half its size, leaving some of the land for redevelopment.

The \$63 million plan is similar to a proposal by the City of Kalamazoo to allow commercial and industrial businesses to move into the area. The EPA says the mound itself could become something like a park - with things like a walking trail, sledding, or a Frisbee golf course.

Kalamazoo assistant city manager Jerome Kisscorni says he was pleased with the EPA's decision.

"It tells you that yes we can get involved when the federal government comes in and we can sit down and work some things out. So it was a compromise and I think it's a good one," he says.

Environmental News Clips – Week ending October 28, 2016

Many residents fought for removing all the waste. Others suggested hiring the bioremediation company [[HYPERLINK "http://biopathsolutions.com/"](http://biopathsolutions.com/)] - which uses microbes to neutralize toxic chemicals. Michael Berkoff is the EPA's remedial project manager for Allied. He says BioPath Solutions could not prove to the EPA that their product works on PCBs.

"We asked them to come to Chicago and A) Explain to us how their technology would work - how it would break down PCBs - and B) To present a bench scale study. They were unable to do either of those things," says Berkoff.

Once work at Allied starts, moving the waste will likely kick up some toxic PCBs into the air. Berkoff says the EPA will do its best to make sure the noise and dust doesn't reach residents:

"We have proven technologies we can use to control dust like wetting down excavation areas and doing air monitoring to confirm that we're actually being successful in that effort," he says.

The work will take about three years, which the EPA says is much less than many of the other cleanup options proposed.

[[HYPERLINK "http://wwmt.com/news/local/epa-gives-green-light-to-final-cleanup-plan-for-allied-paper-landfill"](http://wwmt.com/news/local/epa-gives-green-light-to-final-cleanup-plan-for-allied-paper-landfill)]

EPA gives green light to final cleanup plan for Allied Paper landfill

by WWMT Staff Friday, October 21st 2016

KALAMAZOO, Mich. (NEWSCHANNEL 3) - The Environmental Protection Agency has given the green light to the final cleanup plan for the Allied Paper landfill, in Kalamazoo.

The landfill is part of the larger Allied Paper Superfund site, which spans Allegan and Kalamazoo Counties.

The cleanup includes removing contaminated soil from sections of the landfill next to Portage Creek.

An impermeable cap will also be installed over the landfill.

The EPA will consider potential reuse and redevelopment for the site.

[[HYPERLINK "http://whtc.com/news/articles/2016/oct/22/epa-picks-plan-to/"](http://whtc.com/news/articles/2016/oct/22/epa-picks-plan-to/)]

EPA picks plan to clean Allied Paper dumpsite

Saturday, October 22, 2016 6:49 a.m. EDT by John McNeill

Environmental News Clips – Week ending October 28, 2016

KALAMAZOO (WKZO-AM) -- The EPA has settled on their plan to clean up the Allied Paper Landfill site and it's not the plan the community wanted, but it is the one that the city is willing to accept.

After years of debate, protests and negotiations, the announcement from the EPA was anticlimactic, arriving in a curt and vague news release on Friday, attached to about 800 pages of technical evaluation and official documents compiled by the Federal Agency.

In a nutshell, Alternative 2-D is the \$65-million plan that will concentrate all the contaminated soil at the 43 acre site between Alcott and Cork Street, into a 23-acre pile isolated from Portage Creek.

The contaminated soil will be covered by a large plastic sheet, and several feet of clean topsoil, creating a hill on the site. The remaining 20 acres along the creek could be redeveloped into industrial or commercial uses.

It would still be too contaminated for residential use. There could be some recreational uses for the new hill that would be created.

For years the official position of the City of Kalamazoo and environmental groups was that the only acceptable alternative was to have all the soil carted off to a landfill in Wayne County.

It was a project that would take up to ten years to accomplish and cost three to four times as much as the alternatives the EPA was looking at, and four to five times more than they had available to spend.

Mayor Bobby Hopewell and a city team negotiated the compromise, which had not been among the plans the EPA had been considering. He says "we would have ended up just capping this thing, and not having any opportunities for something that might provide economic development or growth for our community."

Over half a dozen options were pitched, meticulously researched and evaluated during the many years the landfill clean-up has been under consideration.

Alternative 2-D was the only practical one that allows for reuse of the land and would not leave a 43-acre fenced off no-man's land on the city's south side.

Most of the money for the clean-up will come from the money squeezed out of the paper companies that are responsible for making the mess.

Environmental News Clips – Week ending October 28, 2016

This landfill clean-up is just a small part of the much larger Superfund project, which is attempting to clean the Kalamazoo Rivers and some of its tributaries from Comstock to Lake Michigan.

<http://lakeshorepublicmedia.org/elkhart-taking-steps-to-reduce-risk-of-lead-contamination-in-water/>

[HYPERLINK "<http://indianapublicradio.org/news/2016/10/24/searching-for-lead-water-lines-in-an-indiana-town/>"]

October 24, 2016

By: Nick Janzen, IPB News

ELKHART -In the wake of the drinking water crisis in Flint, Michigan, many towns across the country are taking steps to reduce the risk of lead contaminated drinking water—including Elkhart, Indiana. Elkhart's first step is identifying those lead service lines.

Elkhart's Board of Public Works freed up nearly 300,000 dollars for the city's public works department. Utility Service Manager Laura Kolo says the money will be used to locate all the lead service lines.

"Our water utility and water service dates back to the late 1800s, and our first step is to kind of fill in the blanks on any records," said Kolo.

The city is already replacing lead lines when they're found during regular maintenance and repairs. This additional funding will allow it to map all the lead lines and develop a plan to replace them.

Kolo says ID-ing the city's lead lines will take about a year.

"With a lot of luck, you know, we'll get it wrapped up by the end of next year, but more likely it's going to carry into 2018," said Kolo

Kolo says her department will then have to go back to the city for additional funds to replace the lines.

Environmental News Clips – Week ending October 28, 2016

[[HYPERLINK "http://www.courier-journal.com/story/news/local/indiana/2016/10/22/jeff-cant-afford-sewer-fixes-seeks-epa-delay/90043718/"](http://www.courier-journal.com/story/news/local/indiana/2016/10/22/jeff-cant-afford-sewer-fixes-seeks-epa-delay/90043718/)]

Jeff can't afford sewer fixes, seeks EPA delay

[[HYPERLINK "http://www.courier-journal.com/staff/10044214/madeleine-winer/"](http://www.courier-journal.com/staff/10044214/madeleine-winer/)], Courier-Journal 5:23 p.m. EDT October 22, 2016

Jeffersonville has asked federal regulators for a 10-year deadline extension to improve its inadequate sewer system because of limited financing options and rising costs.

While the city has already spent nearly \$100 million on sewer improvements required under a Clean Water Act decree since 2010, the price tag for the last phase could jump from the budgeted \$33 million up to \$45 million, based on current construction costs, said Len Ashack, Jeffersonville's utilities director.

And that's money that the city would be hard-pressed to raise to meet the Environmental Protection Agency's 2025 federal deadline. So it's asked for a reprieve.

Jeffersonville already has \$94.8 million in outstanding sewer debt that will take until at least 2031 to pay off, according to its five-year financial assessment. And it can't raise the extra bond money needed to finish the sewer project without breaching bond covenants or inviting a credit downgrade.

Some of the other big financial problems facing Jeffersonville's plans include:

- Its sewer rates are already among the state's highest – at an average of \$67.27 for residential customers using 5,000 gallons per month – and would have to nearly triple to pay for the last phase, making Jeffersonville's sewer rate by far the highest in the state, according to the city's financial capability assessment.
- The state's "circuit breaker" tax credit, which imposed limits on property tax bills, has cut Jeffersonville tax collections by 14 percent to 18 percent since 2012.
- It's facing millions of dollars in unexpected capital upgrades to the system to meet new federal phosphorus limits in the treated discharge entering waterways.

"Everyone wants to save the environment, but it costs to do that," Ashack said. "And the well is only so deep."

[[HYPERLINK "http://www.cdrecycler.com/article/minnestoa-agencies-win-epa-green-challenge/"](http://www.cdrecycler.com/article/minnestoa-agencies-win-epa-green-challenge/)]

Minnesota federal agencies win EPA Green Challenge award

Minneapolis Veterans Affairs Healthcare System diverted more than 367 tons of construction and demolition waste in 2015.

Environmental News Clips – Week ending October 28, 2016

October 25, 2016

CDR Staff

[[HYPERLINK "http://www.epa.gov/"](http://www.epa.gov/)] has honored the Minneapolis Veterans Affairs Healthcare System, Minnesota National Guard, and U.S. EPA Mid-Continent Ecology Division, Duluth, Minnesota, with the agency's Federal Green Challenge award. EPA selected the Minnesota federal agencies in recognition of their innovative energy saving and other environmental practices.

The Minneapolis Veterans Affairs Healthcare System diverted more than 367 tons of construction and demolition waste out of 450 tons generated in 2015. This is compared to 66 tons out of 150 tons generated the year before. These results reflected an 80 percent increase of recycling construction and demolition waste. The Minneapolis Veterans Affairs Healthcare System also continued to add electric vehicles to its fleet, adding two this year.

The Minnesota National Guard reduced natural gas use from 121.6 million cubic feet in 2014 to 96.5 million cubic feet in 2015, resulting in a 20 percent reduction. Additionally, they reduced their energy use intensity, or energy used per square foot, by an average of 4 percent.

EPA's Mid-Continent Ecology Division reduced the amount of paper purchased from 2,450 pounds in 2014 to 2,200 pounds in 2015 for a 10 percent reduction and increased the number of green meetings by 900 percent. Additionally, the Duluth-based office improved pollinator habitat for butterflies and bees by removing non-native species and adding native flowers and grasses. This landscaping change saves energy as three and a half acres are no longer mowed.

EPA's Federal Green Challenge encourages federal agencies throughout the nation to lead by example by conserving energy and resources, cutting waste, reducing pollution and saving money.

More information on the Federal Green Challenge is available at [[HYPERLINK "http://www.epa.gov/fgc/"](http://www.epa.gov/fgc/)].

[[HYPERLINK "http://www.mlive.com/news/ann-arbor/index.ssf/2016/10/dingell_raises_concerns_about.html"](http://www.mlive.com/news/ann-arbor/index.ssf/2016/10/dingell_raises_concerns_about.html)]

Dingell raises concerns about dioxane plume in letter to EPA administrator

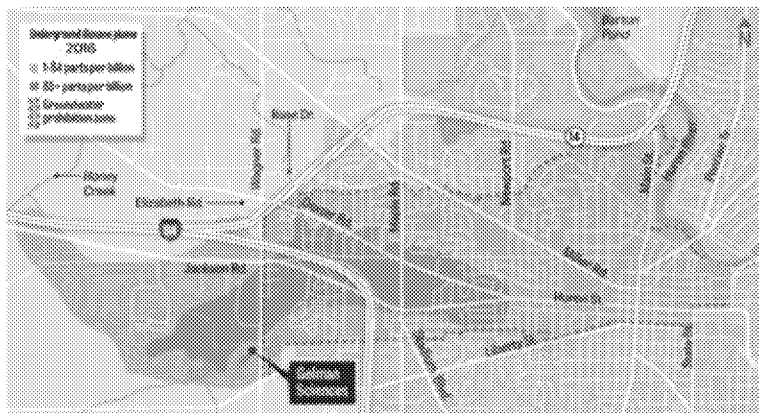
By [[HYPERLINK "http://connect.mlive.com/staff/ryanstanton/posts.html"](http://connect.mlive.com/staff/ryanstanton/posts.html)] The Ann Arbor News
Email the author | [[HYPERLINK "https://twitter.com/ryanjstanton"](https://twitter.com/ryanjstanton)]
on October 25, 2016 at 5:32 PM, updated October 26, 2016 at 8:09 AM

Environmental News Clips – Week ending October 28, 2016

[[HYPERLINK "http://www.mlive.com/news/ann-arbor/index.ssf/2016/10/dingell_raises_concerns_about.html"](http://www.mlive.com/news/ann-arbor/index.ssf/2016/10/dingell_raises_concerns_about.html) \I "comments"]

ANN ARBOR, MI – U.S. Rep. Debbie Dingell is reaching out to the Environmental Protection Agency, raising concerns about the Gelman dioxane plume spreading through the Ann Arbor area's groundwater.

Dingell, D-Dearborn, sent a [[HYPERLINK "https://debbiedingell.house.gov/sites/debbiedingell.house.gov/files/documents/EPA%20Dioxane%20Letter%2010.25.16.pdf"](https://debbiedingell.house.gov/sites/debbiedingell.house.gov/files/documents/EPA%20Dioxane%20Letter%2010.25.16.pdf)] on Tuesday, Oct. 25, questioning current efforts to address the toxic chemical plume that has been spreading from the former Gelman Sciences site on Wagner Road for decades, now contaminating much of the groundwater on Ann Arbor's west side and parts of Scio Township west of the city.



An estimate of the extent of the Gelman dioxane plume. Plume boundaries shown here are based on a map created by Washtenaw County in February 2016. *MLive*

The letter comes after recent developments, including the discovery of [[HYPERLINK "http://www.mlive.com/news/ann-arbor/index.ssf/2016/10/could_traces_of_toxic_chemical.html"](http://www.mlive.com/news/ann-arbor/index.ssf/2016/10/could_traces_of_toxic_chemical.html)] on Ann Arbor's west side, have increased the level of concern in the community.

Dingell said the recent reports of dioxane in shallow groundwater near a neighborhood are deeply troubling and raise questions about the adequacy of existing remediation efforts by Pall Corp. under the regulatory oversight of the Michigan Department of Environmental Quality.

Gelman Sciences was acquired in 1997 by Pall Corp., which was acquired last year by Danaher Corp., a multibillion-dollar corporation that some local officials and residents argue has the financial resources to do a better cleanup.

"This is clearly an issue that needs to be addressed immediately and it is my hope that this letter will help inform all stakeholders as we move forward toward a solution that will ensure this contamination is properly cleaned up," Dingell wrote in her letter to the EPA administrator on Tuesday.

Environmental News Clips – Week ending October 28, 2016

"The contamination is the result of irresponsible business practices by Gelman Sciences, now owned by Pall Life Sciences, which incorporated the chemical in its manufacturing of medical filters in Scio Township, Michigan," Dingell wrote to McCarthy, recalling how wastewater containing 1,4-dioxane was sprayed on lawns and stored in unlined lagoons, seeping through soil and rock layers into the groundwater between 1966 and 1986.

Dioxane is classified by the EPA as likely to be carcinogenic to humans by all routes of exposure. It also can cause kidney and liver damage, and respiratory problems. Short-term exposure to high levels of dioxane in the air can cause eye, nose and throat irritation.

Dingell said the dioxane plume has greatly expanded over the last 20 years, now encompassing more than three square miles.

"It is troubling that the plume continues to grow even as remediation efforts are ongoing," she wrote to McCarthy, adding that the number of monitoring wells that have had their highest-ever reading has increased.

Dingell noted ongoing pump-and-treat remediation efforts by Pall/Gelman are being overseen by the DEQ pursuant to a consent decree.

"What role does EPA have in ensuring that MDEQ and Pall are living up to their obligations and meeting the terms of the consent decree?" Dingell asked in the letter. "Has EPA reviewed whether the remediation plan outlined in the consent decree is consistent with requirements of the Safe Drinking Water Act and the Clean Water Act? Based on available information, does EPA assess that the current level of contamination is an immediate threat to human health?"

Dingell said residents have been concerned the expansion of the plume could lead to greater health risks through vapor intrusion into buildings, and the DEQ acknowledges that is a potential exposure pathway.

"Recent testing has now detected 1,4-dioxane in shallow groundwater near a neighborhood," Dingell wrote. "Is EPA concerned that dioxane could be inhaled as vapor when it comes into contact with building foundations and basements?"

She also asked whether the EPA believes the presence of chloroform and trichloroethane, two other chemicals found in shallow groundwater on Ann Arbor's west side, could be related to the dioxane plume.

"Thank you for your prompt attention to these questions," Dingell wrote, concluding her letter.

Dingell's letter comes less than 24 hours after the Ann Arbor City Council [[HYPERLINK "http://www.mlive.com/news/ann-arbor/index.ssf/2016/10/dioxane.html"](http://www.mlive.com/news/ann-arbor/index.ssf/2016/10/dioxane.html)] [[incart_2box_news_ann-](#)

Environmental News Clips – Week ending October 28, 2016

arbor"] to direct the city administrator to explore options for more expeditious and effective cleanup efforts and to seek Dingell's assistance in exploring whether the DEQ is fulfilling its delegated authority under the Clean Water Act and the Safe Drinking Water Act.

The council also directed the city attorney to continue providing legal advice on a regular basis.

The city is considering a variety of legal options ranging from trying to push for a better cleanup in court to petitioning the EPA for a Superfund cleanup.

The city also is waiting on the state to adopt stricter exposure criteria for dioxane, something it was required by law to do three years ago.

The company responsible for the pollution has spent millions doing pump-and-treat remediation over the years to remove dioxane from the groundwater.

However, the rate of pumping and treating has slowed in recent years and some want to see it increased.

The company is permitted to extract and treat 1,300 gallons per minute, and at one time it was approaching that. The average monthly pumping rate for active extraction wells was 1,115 gallons per minute in April 2011, but it was down to 487 gallons per minute as of earlier this year.

The DEQ has given no indication it will press the company to do more pumping and treating to more aggressively remove the toxic chemical from the environment.

The plume poses a long-term threat to Ann Arbor's water supply and a more immediate threat to private wells in township areas surrounding the city.

Vapor intrusion also is a serious concern now as dioxane potentially spreads through shallow groundwater areas near homes and other buildings.